

CLAIMS

I claim:

1. (Currently amended) A functional toothbrush, comprising:
  - a toothbrush body with a head part;
  - a first plurality of rows, each row having needle-shaped bristles set in a longitudinally elongate groove and longitudinally arranged along an outer edge of said head part of said toothbrush body; and
  - a second plurality of rows, each row having needle-shaped bristles set in a latitudinally elongate groove and longitudinally arranged on a central portion of said head part of said toothbrush body,wherein a length of each of the needle-shaped bristles set in said outer edge of said head part is longer than a length of each of the needle-shaped bristles set in said central portion of said head part by 1.5-3.5mm, each of the elongate grooves having an elliptical shape.
2. (Currently amended) The functional toothbrush according to claim 1, wherein the needle-shaped bristles set in each of the elongate grooves comprise a plurality of bristles having different end points from 0.01 to 0.03mm in thickness and different tapers from 5 to 12mm in length.
3. (Currently amended) The functional toothbrush according to claim 1, wherein each of the elongate grooves has a minor axis from 1.6 to 2.5mm in length and a major axis from 2.5 to 5.0mm in length.
4. (Currently amended) The functional toothbrush according to claim 1, wherein each of the needle-shaped bristles is set in each of the elongate grooves after being folded such that a height difference of 0.5-1.5mm exists between both ends of the folded needle-shaped bristle.

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5. (Currently amended) A method for manufacturing a toothbrush, said toothbrush having a toothbrush body with a head part, said method comprising the steps of:

setting a first plurality of rows, each row having needle-shaped bristles, in a longitudinally elongate groove and longitudinally arranging each row along an outer edge of said head part of said toothbrush body; and

setting a second plurality of rows, each row having needle-shaped bristles set in a latitudinally elongate groove and longitudinally arranging each row on a central portion of said head part of said toothbrush body, wherein each of the elongate grooves formed on said head part has an elliptical shape, the needle-shaped bristles being set such that length of each of the needle-shaped bristles set in the elongate groove placed on an outside part of said head part is longer than length of each of the needle-shaped bristles set in the elongate groove placed on an inside part of said head part by 1.5-3.5mm.

6. (Currently amended) The method for manufacturing the toothbrush according to claim 5, wherein the needle-shaped bristles set in each of the elongate grooves comprise a plurality of bristles having different end points from 0.01 to 0.03mm in thickness and different tapers from 5 to 12mm in length.

7. (Currently amended) The method for manufacturing the toothbrush according to claim 5, wherein each of the elongate grooves has a minor axis from 1.6 to 2.5mm in length and a major axis from 2.5 to 5.0mm in length.

8. (Currently amended) The method for manufacturing the toothbrush according to claim 5, further comprising:

folding each of the needle-shaped bristles set in each of the elongate grooves such that a height difference from 0.5 to 1.5mm exists between both ends of the folded needle-shaped bristle.